

Full Title of the Project : Construction of 400 kV D/C North Karanpura to Gaya transmission line
File No. : FP/JH/TRANS/41236/2019
Date of Proposal : 18/07/2019

JUSTIFICATION FOR LOCATING THE PROJECT IN FOREST LAND

Name of Company: North Karanpura Transco Limited

Name of Project: 400 KV D/C North Karanpura to Gaya Transmission Line (Jharkhand Portion)

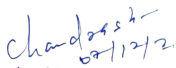
The introduction of Electricity act 2003, competition was brought into power sector and its sub sectors. Power generation business was delicensed which led to huge capacity addition by the private sector and this warranted transmission network to be reinforced so that all the power generated could be supplied to the end users. The provision for independent transmission licenses were created for private sector to get in to the business.

The Government of India, Ministry of Power, vide Gazette Notification dated July 08, 2014 has notified REC Transmission Project Company Ltd. to be the Bid Process Coordinator (BPC) for the purpose of selection of Bidder as Transmission Service Provider (TSP) to establish Transmission System for "Immediate Evacuation for North Karanpura (3X660MW) generation project of NTPC along with creation of 400/220kV Substation at Dhanbad (ERSS-XIX)" through tariff based competitive bidding process. As part of said project the Special Purpose Vehicle (SPV) "North Karanpura Transco Ltd" formed to develop the proposed project.

The objective to plan, promote and develop an integrated and efficient power transmission system network in all its aspects including planning, investigation, research, design and engineering, preparation of preliminary, feasibility and definite project reports, construction, operation and maintenance of transmission lines, substations, load dispatch stations and communication facilities and appurtenant works, coordination of integrated operation of regional and national grid system, execution of turn-key jobs for other utilities/organizations and wheeling of power in accordance with the policies, guidelines and objectives laid down by the Central Government from time to time.

In this context, the Central Electricity Authority (CEA), Ministry of Power, Government of India has issued the administrative approval under Section 14, 68(1) & 164 of Electricity Act, 2003 in favour of the North Karanpur Transco Limited to establish "Immediate Evacuation for North Karanpura (3X660MW) generation project of NTPC along with creation of 400/220kV Substation at Dhanbad (ERSS-XIX)".

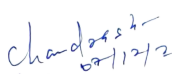
Central Coalfields limited (CCL) and Ministry of Coal (MOC) has issued NOC for construction of North Karanpura- Chandwa line and North Karanpura- Gaya Line through coal bearing area on common route by using multi circuit towers up to the common point AP/19 and both lines to be constructed


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on common corridor considering the minimum coal blockage. Hence, the starting point for the 400kV D/C North Karanpura Gaya line is from AP/19. The Proposed 400 kV D/C North Karanapura to Gaya Transmission line route length from common point of multi circuit tower of North Karanpura to Chandwa Line to State border of Jharkhand is about **69.74 kms.** All the efforts were made to find a most feasible route which may involves minimum / least forest land through various alternative routes.

For selection of optimum routes following points are taken into consideration:

- ✓ Minimum route length
- ✓ The transmission line is away from the major settlement areas
- ✓ No wildlife sanctuary / Biosphere/ Protected Areas / Aetiological sites.
- ✓ Least forest involvement
- ✓ No involvement of Defence & Airport authority of India sites
- ✓ Higher density tree patches avoided
- ✓ No involvement of temples/ Cultural Habitats/ Schools & colleges.
- ✓ Road connectivity to project sites to avoide construction of temp roads
- ✓ No involvement of Industrial corridor


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Place: Ranchi

Date : 07.12.2021

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Annexure – I

COMPARATIVE STATEMENT OF ALTERNATIVE ROUTES

Sl. No.	DESCRIPTION	Route-I	Route-II	Route-III
1	Route Particulars			
	(i) Bee Line (KM)	62.327 KM	62.327 KM	62.327 KM
	(ii) Length (KM)	69.74KM	70.28 KM	78.96 KM
	(iii) Angle Points	73 Nos	82 Nos	83 Nos
	(iv) Terrain	Plain Terrain- 70% Hilly / Undulation terrain- 30%	Plain Terrain- 70% Hilly / Undulation terrain- 30%	Plain Terrain- 70% Hilly / Undulation terrain- 30%
2	Environmental Impact	Minimum	Moderate	Moderately High
3	Houses within R.O.W.	No house falls within ROW corridor.	Few house falls within ROW corridor.	Few house falls within ROW corridor.
4	Forest involvement			
	Details of Forest involved	Most of the forest involved are of Protected forest & some parts of Revenue forest. No reserved forest, Archeological / Defence/ Aviation sites, wildlife Sanctuaries, national parks, Eco sensitive zone, Buffer Zone, Biosphere is involved in this alignment.	Most of the forests involved are of Protected forest & Revenue forest. No reserved forest, Archeological / industrial Defence/ Aviation sites, wildlife Sanctuaries, national parks, Eco sensitive zone, Buffer Zone, Biosphere is involved in this alignment	More forest area involved compared to route 1 & 2 most for the forests are of Protected forest & Revenue forest. No Reserved forest, Archeological / industrial Defence/ Aviation sites, wildlife Sanctuaries, national parks, Eco sensitive zone, Buffer Zone, Biosphere is involved in this alignment
	State Involved	Jharkhand	Jharkhand	Jharkhand
	Length of forest area	42.828 Km	44.45 Km	47.78 Km
	Reserved Forest	Nil	Nil	Nil
	Protected Forest	149.1959Ha	151.4744 Ha	162.8222 Ha
	GM Jungle Jhari	47.8156 Ha	52.9956Ha	56.9658 Ha
	Total Forest area	197.0115 Ha	204.47Ha	219.788Ha


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Sl. No.	DESCRIPTION	Route-I	Route-II	Route-III
	Flora	Sparse flora through most of the alignment commonly found species Like Palash, Sakua, Kendu, Ghamhar, Siddha , Mahua, Asan Etc., found	Dense and diverse flora in the alignment species like Like Palash, Sakua, Kendu, Ghamhar, Siddha , Mahua, Asan Etc.,found	Very Dense and diverse flora in the alignment species Like Palash, Sakua, Kendu, Ghamhar, Siddha , Mahua, Asan Etc., found
	Fauna	Chital, Nilgai, Sambar, Sloth Bear, Wild Boar Rabbit, Fox ,common monkey, Squirrel, etc.,	Chital, Nilgai, Sambar, Sloth Bear, Wild Boar Rabbit, Fox ,common monkey, Squirrel, etc.	Chital, Nilgai, Sambar, Sloth Bear, Wild Boar Rabbit, Fox ,common monkey, Squirrel, etc.
5	Railway Crossing	1 No	1 Nos	1 No
6	Highway Crossing	2 Nos	2 Nos	2 Nos
7	Power Line Crossing:	3 Nos	3 Nos	3 Nos
8	Industrial Corridor	Nil	Nil	Nil
9	Site Connectivity	Good	Moderately Good	Not Good
10	Corridor	46m wide As per MOEF&CC guideline F.NO 7-25/2012 –FC, the Width of right way for transmission lines on forest land shall be 46m for 400kV/DC Transmission Voltage. After Stringing area remaining ROW maintained for safety purpose.	46m wide As per MOEF&CC guideline F.NO 7-25/2012 –FC, the Width of right way for transmission lines on forest land shall be 46m for 400kV/DC Transmission Voltage. After Stringing area remaining ROW maintained for safety purpose.	46m wide As per MOEF&CC guideline F.NO 7-25/2012 –FC, the Width of right way for transmission lines on forest land shall be 46m for 400kV/DC Transmission Voltage. After Stringing area remaining ROW maintained for safety purpose.


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Sl. No.	DESCRIPTION	Route-I	Route-II	Route-III
11	Recommendations	This route length are comparable minimum crossings, well connected by road network which is convenient for construction /O&M. this route has no wildlife sanctuaries Biosphere, ESZs, Defence & Aviation zones, Industrial corridors. This route has less vegetation, away from settlements areas and least forest land involved Least no of trees will be impacted. Hence this route is more feasible economical, environment friendly and beaning recommended.	This route is ruled out due to ecological reasons as forest land involved is more compared to Route I, The proposed corridor is passing through some of the settlements areas and no proper approach roads to project sites alternative route is uneconomical & unfeasible.	This route is ruled out due to longest route length compared to Route I & II Impact on ecology is expected to be high due to higher forest area, Involvement of Industrial corridor and involvement most of the area is not feasible in terms of constructability and approach roads.


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